

ABSTRACT OF THE DISCLOSURE

A PN junction diode has a substrate 1 of a first conductivity type, and first and second stripe diffusion regions 2, 3 which are the first conductivity type and second conductivity type, respectively. The stripe diffusion regions are alternately arranged at a regular interval in a surface layer of the semiconductor substrate. The diode further includes first and second stripe electrodes 7a, 7b connected to the first and second diffusion regions along the longitudinal sides thereof, respectively. The diode further includes a third electrode 7b' which covers through an insulation film 5, 5' the neighboring ends of the first and second diffusion regions and of which a potential is equalized to that of the second electrode 7b having a different conductivity type from the substrate.